

Stephen Thornton, Chief Electrical Inspector

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**Question of the Month** – How many 12-2 with ground nonmetallic-sheathed cables can be installed in an 18 cubic-inch plastic nail-on device box, which will contain a flush-mounted duplex receptacle? *See correct answer on page 2.*

## Electrical Board Appointments

In July, Governor Inslee made four appointments to the [Electrical Board](#). Two were existing board members who have agreed to serve for another four-year term. Thank you to John Brickley, who represents city electrical inspection jurisdictions and David Ward, who represents electric utilities, for their previous service and agreeing to serve another term.

Two of the appointments are new to the Electrical Board. Jason Jenkins replaces Rod Belisle in one of three electrician seats on the board. Jason comes to the board with 25 years' experience in the electrical industry. He holds electrician certifications from both Washington and Oregon. Jason is from Kelso, WA and is currently an electrical instructor for the NECA/IBEW Electrical Training Center.

Another new member is Ryan LaMar, representing telecommunications utilities. Ryan replaces Dennis Townsend, and is from Federal Way, WA. Ryan has worked for CenturyLink since 2007 as a Plant Facilities Supervisor, Construction Project Administrator, and Field Support Administrator. He is a graduate of Washington State University (go Cougs), and has served our country in the United States Army since 1999, with a recent tour in Afghanistan.

Special thanks to Rod Belisle and Dennis Townsend for their excellent service to the Electrical Board and Washington's electrical industry.

## Electrical Fee Increase Proposal and Public Hearing

The Electrical Program is considering amending fees for electrical permits, licenses, and administrative services in WAC 296-46B-[906](#), [909](#), and [911](#). The Electrical Program's budget and projected revenue indicate a fee increase is necessary to cover the program's operating expenses and to maintain an acceptable level of service to our customers. The proposal will seek to increase fees by 4.32%, the Office of Financial Management's maximum allowable [fiscal growth rate factor](#) for fiscal year 2017. The electrical fees were last increased July 2012.

The [CR-101](#) was filed on July 5, 2016. The next step will be notifying all affected stakeholders of the public hearing and comment process. The proposed fees will be discussed with the Electrical Board and attending stakeholders at the [Electrical Board meetings](#) on July 28, 2016, and October 27, 2016. A public hearing is scheduled for September 30, 2016 at 9 a.m. at the [Tumwater L&I building](#), 7273 Linderson Way SW, Tumwater, WA.

As discussed in last month's newsletter, the department will be announcing a separate rulemaking to adopt the 2017 National Electrical Code. Watch for a special edition newsletter giving details. Information will also be posted on the [Electrical Rule Development](#) page of our website.

## Safety Tip of the Month

Providing a safe work environment used to focus more on slippery floors and air quality than safe zones and evacuation routes. Unfortunately, today's world forces everyone to prepare for a much more dangerous and increasingly possible event – an active shooter entering our workplaces. The FBI released a report in 2014 revealing that the number of active shooter incidents in the United States increased over 250 percent from 2006 to 2013. Tragically, these events have occurred at an even greater rate over the last two years. With almost 70 percent of these incidents occurring at a business, school or healthcare facility, employers are now realizing that they need to have a plan for how to prepare and respond for these types of events.

The Department of Homeland Security and the city of Houston have created a very powerful, free, six-minute [video](#) on the Run, Hide, Fight approach that is available for training your employees.

## Port Angeles Electrical Inspector Mike Anderson Passes Away

The electrical program was saddened with the loss of inspector Mike Anderson. Mike passed away July 8, 2016 at the age of 63. Mike began working for the Department of Labor & Industries in 2001 as an electrical inspector, and proudly served the people of Jefferson and Clallam counties for over fifteen years. Mike was a Navy veteran and wonderful person who demonstrated the perfect balance between being a friend and a co-worker. For those that worked with him he was encouraging and inspiring. Mike was a meticulous craftsman who had a passion for refurbishing classic motorcycles and could often be seen cruising in his vintage Harley Davidson with a huge smile on his face, and his dog in the sidecar. Mike will be greatly missed and everyone here is saddened by his passing. Our thoughts and condolences are with his friends and family during this time.



## Electrical Program Accomplishments for Fiscal Year 2016

The electrical program saw an increase in workload for Fiscal Year 2016, which ended June 30, 2016. All areas (permits, inspections, compliance, and licensing) showed increase, which is a reflection of Washington's increasing economic recovery. Here is some data from the last year that demonstrates the amount of work performed by our dedicated staff:

- 144,205 electrical permits were sold (92% online), which is an increase of 14% over last fiscal year.
- 236,422 electrical inspections were made (a 10% increase). 82% of inspections were requested online.
- 2.4 million miles were driven, slightly more (60,000) than last year.
- 43,975 corrections were issued for serious code violations. These represent about half of total corrections and are violations that would result in compliance action and eventual disconnection of power. By far, property owner permits are the most likely to receive serious corrections. At least one serious correction was issued for 50% of property owner inspections, compared to 15% for electrical contractor inspections.
- The economy is improving and our inspection response time went down slightly. For FY16, we responded to approximately 90% of inspections within 48 hours of the date requested. Unfortunately, this means that 23,595 times, customers had to wait more than 48 hours for inspection. Number of inspectors and workload affects response times. Before the economy crashed, we had 144 inspection staff; now we have 124. Restoring positions as the economy recovers will be key to improving our response time.
- The correction reduction initiative realized a 21.8% improvement in the number of corrections written to the group of contractors identified as having the most corrections per inspection the previous fiscal year. These contractors receive a list of their corrections each month and are encouraged to use the information to help their electricians improve the quality of their installations. Typically, 20% of contractors receive 80% of corrections.
- 4,172 citations were issued for the focused underground economy. These violations include failing to obtain electrical permits, unlicensed electrical contractors, or uncertified electricians. This represents a slight decrease from the previous fiscal year's 4,253 citations and may be due to the increased inspection workload.
- The licensing section processed 27,231 licenses (contractor, electrician, and trainee applications and renewals). Almost 100% of these were processed the same day they were received. In addition, 12,957 renewals and trainee certificate applications were processed by customers online.
- Our auditors reviewed affidavits of experience for 1,270,612 electrical trainee and out-of-state experience hours to qualify for electrical certification examinations. Of those, 850,621 were denied. Reasons for denial include inability to verify out-of-state experience, lack of or inactive training certificates, lack of proper supervision (sometimes no certified electricians on staff), inability to verify employment (no legal employment records), lack of electrical permits to verify work performed, and lack of valid contractor licensing.

**Answer to Question of the Month:** Two 12-2 with ground cables. NEC 314.16: #12 volume allowance per conductor =  $2.25 \text{ in}^3$ . One duplex receptacle =  $4.5 \text{ in}^3$  (double volume allowance). Equipment grounds =  $2.25 \text{ in}^3$  (single volume allowance). Two cables = four conductors  $\times 2.25 = 9 \text{ in}^3$ . Total volume of conductors, grounds, and receptacle =  $15.75 \text{ in}^3$ . This leaves  $2.25 \text{ in}^3$  which would allow one 12-2 and one 12-3 cable in this box which would bring the total to  $18 \text{ in}^3$ .

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<http://www.ElectricalCurrents.lni.wa.gov>

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